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SCIENTIFIC-ATLANTA, INC. INTELLECTUAL PROPERTY DEPARTMENT 5030 SUGARLOAF PARKWAY LAWRENCEVILLE, GA 30044				SALCE, JASON P
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/709,167	SCHLARB ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason P. Salce	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 October 2008.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 82-107 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 82-107 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### ***Response to Arguments***

Applicant's arguments filed 10/06/2008 have been fully considered but they are not persuasive.

Applicant has amended independent claims 82 and 98 to recite, "**the channel table comprising at least one channel entry comprising more than one category**".

The Examiner notes that this amendment still reads on the prior art of record. See Column 49, Lines 36-67 for Mankovitz teaching that each record of the database file contains a channel field and series of boolean fields, each field representing a certain category of the television program (**and the corresponding channel in the channel field**). Therefore, Mankovitz clearly teaches that the database file (**channel table**) comprises at least one channel entry (**the channel field**) comprising more than one category (**boolean fields with each bit corresponds to a different category**).

The Examiner further notes that the teaching of Mankovitz is clearly equivalent to the teachings of Applicant's specification on Page 8, Line 22 through Page 10, Line 14, where a channel table includes the same boolean fields (**taught by Mankovitz**) being combined into a single bit mask (**plurality of assigned categories**). Therefore, the amendments to claims 82 and 98 do not overcome the prior art previously used to reject the claims.

Applicant also argues that Lasky's spreadsheet is not the same as or equivalent to the claimed features because the channel table recited in claim 82 requires a plurality of assigned channel categories to television channels.

The Examiner disagrees and notes Lasky teaches these limitations at Column 5, Line 64 through Column 6, Line 1 for teaching a program-guide database that includes a record for each program, where each record includes a channel-number field 611, thereby creating a channel table (**thereby including a plurality of television channels by the use of multiple records**). Lasky further teaches at Column 6, Line 4 that each record further includes a category field 617 and that at Column 6, Lines 13-16 multiple categories can be specified. Therefore, Lasky clearly teaches that the channel table (**the program guide database at Column 5, Line 64**) recited in claim 82 comprises a plurality of assigned channel categories (**Column 6, Lines 13-16**) to television programs (**each record contains a channel field 611 and a different assigned category 617**).

The Examiner further notes that Lasky's teaching of a spreadsheet is simply to provide a graphical description of how an electronic program guide is viewed and in no way teaches away from the broadly recited "channel table" as recited in the claims.

Applicant also argues that Lasky fails to teach searching the master program guide simultaneously with the causing of a display. The Examiner disagrees and notes that the channel hat configuration of Figure 6B clearly teaches searching a portion of the channel table (**a selected category 622**) for data related to at least one channel to

which a category is assigned (**channel number displayed 132**), while Figure 5 discloses simultaneously display of the channel hat searching tool 70 and one television program 131.

Applicant further argues that Lasky does not disclose or suggest that the master guide comprises at least one channel entry comprising more than one category. See the Examiner's rebuttal above regarding these amended claim limitations.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant further argues that the discussion of a search of programs referenced in the above-citations of Lasky appears to be directed to a search of database records as described in Figures 9A-9B, and not a search of the master guide. Hence, Lasky does not disclose or suggest the claimed simultaneous search of a portion of the channel table and display features.

The Examiner disagrees and notes that the simultaneously claim limitations are broad and the only display functionality recited refer to the display of one television program. The claims do not exclude the searching functionality from being interpreted at retrieving data from a database. However, even if the claim limitations required that

the searching functionality must also be displayed, Lasky teaches the display of the hat interface (**Figure 6B**) which displays the searching function used to access the database records stored in memory.

Applicant notes that claim 82 does not recite “bit fields”, but rather, a bit mask, which is not disclosed in Lasky. Applicant provides no explanation of how the “bit fields” is different from Applicant’s bit mask, however, the Examiner disagrees.

Applicant’s specification on Page 9, Lines 8-13 teach that each bit in a bit field/mask corresponds to a different category. Mankovitz teaches the same type of bit field/mask at Column 49, Lines 36-67.

Applicant also argues that the Office Action appears to improperly intermingle the EPG with the database records, which are described in Lasky as separate entities. As noted by the Examiner above, the claims make no distinction in regards to the simultaneous searching and displaying of a single television program. Further, the Examiner notes that whether the EPG data is being accessed in memory or displayed on a television, the EPG data (**stored in the database**) is the same entity being used to perform both functions.

Applicant also argues that Mankovitz does not disclose that a record comprises a listing of channels. The Examiner notes that neither do Applicant’s claims. Applicant’s

claims do not recite a “record” or anything related to a record within the channel table.

In the previous Office Action, the Examiner had equated the “record” to the EPG database, where the EPG database includes a plurality of channels and a bit fields/mask for each channel. Therefore, while Lasky discloses an EPG database with a category field, Lasky fails to teach that each channel entry includes a category field that comprises more than one category, while is clearly taught by Mankovitz.

Applicant also argues that Mankovitz fails to teach that each bit of the bit mask references to a predetermined category and then states that “(i.e. one field does not equate to several categories)”. The Examiner notes that the claim limitations do not require that each bit field correspond to several categories. The claims only states that each bit of the bit mask refers to a predetermined category (singular). As rebutted by the Examiner above, both Applicant’s specification and Mankovitz teach a bit mask, as claimed.

Applicant further argues that it would not be obvious to modify the program guide database of Lasky using the bit masking of Mankovitz, because neither Lasky nor Mankovitz use a channel table to initially facilitate searching in the manner claimed. As rebutted above by the Examiner, Lasky clearly teaches the use of a channel table (EPG database) to facilitate searching.

In regards to claim 95, Applicant argues that the Office Action equates the first data to program guide information. While the EPG data is being interpreted as the first data, the claims are broad and only reference the first data in the beginning of the claim

by reciting, "a first data and a second data, said first data including respective program information for a plurality of corresponding television programs". The examiner notes that this could be interpreted as the incoming television programs that are tuned and received by the television receiver, the EPG data that is received by Lasky prior to filtering the EPG data into a set of EPG data that is stored in the EPG data (**referenced by Applicant on Page 18 of Applicant's Arguments, which states that Lasky extracts select entries to be stored in the master program guide (see Column 6, Lines 15-19 of Lasky)**), or the EPG data stored in the database other than the channel and category data used to describe the second data. Therefore, Lasky clearly provides a distinction between the first and second data.

Regarding the remaining arguments related to claim 95, see the Examiner's rebuttal above in regards to the Applicant's arguments of claim 82.

In regards to claim 100, Applicant also argues that the rejection fails to teach a bit field signifying a plurality of television channel categories. Again, see Mankovitz's bit field/mask containing multiple bits, wherein each bit signifies a plurality of television channel categories (**see Examiner's rebuttal above**).

Regarding the remaining arguments related to claim 100, see the Examiner's rebuttal above in regards to the Applicant's arguments of claim 82.

In regards to the new claims added by Applicant, see the updated rejection below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 82-92, 94, 95, 97, 98, 100 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (U.S. Patent No. 6,760,537).

Regarding Claim 82, Lasky shows in a television network a terminal for providing television program information and television programs (**see figure 5, col. 4 lines 10-35 and 65-67, EPG system allowing to display category information and television program**), the terminal comprising:

a memory configured for storing a first data and a second data (**col. 5 lines 64-67, col. 6 lines 1-20, program guide database contains record for each program and television programs to display to the viewer, figure 5 item 52**), said first data (**col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network and television programs to display to the viewer**) including respective program information for a

plurality of corresponding television programs (**col. 6 lines 1-20, title field, time slot, end offset, start offset and length information and television programs to display to the viewer**), said second data different than the first data, the second data comprising a channel table (**electronic program-guide –EPG– category and channel information**) that includes a plurality of assigned channel categories to television channels (**see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**); and

a processor, coupled to the memory, the processor configured to simultaneously search at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49.** **The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65,**

**category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information, wherein all data the system is stored in a digital system, which inherently contains data that is represented by 1s and 0s), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program).**

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with

each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Regarding claim 83, it is met by the combination of Lasky and Mankovitz. In particular, Lasky discloses that the processor is further configured to cause the display of program information corresponding to the first data and corresponding to at least one television channel being determined by a corresponding category in the second data (**col. 5 lines 30-45, control program and clock I/O module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category**). Because Lasky shows that each

channel can receive multiple programs with multiple categories (**col. 6 lines 1-20, each program designated differed category**), subsequently each channel is assigned a plurality of categories. As shown by the scrolling through of each program of a given category (**col. 6 lines 30-65**), a channel is designated a certain category at a particular time, which changes to a different category depending on the broadcast information.

Regarding Claim 84, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the processor causes the display in a browse banner of at least a portion of the first data including information of the at least one channel based and program information corresponding to the first portion of first data (**see fig. 6b, col. 6 lines 30-65, channel number and title of program**).

Regarding Claim 85, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the display of the browse banner on top of a portion of the television program is responsive to receiving an input signal to initiate the browse command (**col. 6 lines 27-65, indicating that the “channel hat” icon is displayed when a user changes the channel, activating the browser or “channel hat”**).

Regarding Claim 86, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the processor can display a browser banner to replace a portion of the first data being displayed, the second portion of the first data being displayed according to a display configuration different than the browse banner

configuration (**col. 5 lines 45-63, col. 6 lines 20-30, displaying program information in a program guide grid and banner system, as opposed to the “channel hat” method**).

Regarding Claim 87, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows displaying the corresponding category assigned to the channel in the banner (**fig. 6b, category 624 series (comedy)**).

Regarding Claim 88, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the display of the assigned category in the browser banner is responsive to a user selection from one from a plurality of categories (**col. 9 lines 55-67, col. 10 lines 1-10, surfing different programs by changing categories**).

Regarding Claim 89, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that a portion, or selected, category of the plurality of categories is shown to the user in the banner (**fig. 6b, category 624 series (comedy)**).

Regarding Claim 90, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows a graphical representation of navigation keys used on a user input device to browse the program information corresponding to the at least one television channel being determined by the corresponding assigned category in the second data (**fig. 6b, left and right arrows**).

Regarding Claim 91, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows the processor blocking the tuning of television channels different than the at least one television channel being determined by the corresponding assigned category in the second data (**col. 6 lines 30-65, scrolling left and right only displays those programs that are within the selected category**).

Regarding Claim 92, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows the processor restricts channel tuning to only the at least one channel being determined by a corresponding assigned category in the second data (**col. 6 lines 30-65, scrolling left and right only displays those programs that are within the selected category**).

Regarding Claim 94, it is met by the combination of Lasky and Mankovitz. In particular, Lasky shows that the at least one television channel being determined by a corresponding assigned category in the second data has two assigned categories (**col: 6 lines 1-20, category information including movies, sports, specials, news, etc., col. 6 lines 50-67, associating channel numbers and categories**). As discussed above, because Lasky shows that each channel can receive multiple programs with multiple categories (**col. 6 lines 1-20, each program designated differed category**), subsequently each channel is assigned a plurality of categories. As shown by the scrolling through of each program of a given category (**col. 6 lines 30-65**), a channel is

designated a certain category at a particular time, which changes to a different category depending on the broadcast information.

Regarding Claim 95, Lasky shows a terminal comprising;  
an interface to the television network said interface being capable of receiving a first data and a second data, said first data including respective program information for a plurality of corresponding television programs (**col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network and television programs to display to the viewer**); and  
a processor, coupled to the memory, the processor configured to simultaneously search at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49.**  
**The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**)

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65,**

**category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program).**

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and

wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (see Column 49, Lines 62-67).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (*for each record with a channel field*) that includes an entry for each category).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (see Column 49, Lines 51-53 of Mankovitz).

Regarding claim 97, it is met by the combination of Lasky and Mankovitz. In particular, Lasky discloses that the processor is further configured for causing the display of program information in the first data (col. 5 lines 30-45, control program and clock I/O module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category), said program information corresponding to television programs being provided by at least a portion of the plurality of television channels said at least portion of the plurality of television channels being determined by a corresponding association

to a first category in the second data (**col. 6 lines 30-40, showing existence of other programs within the same category**).

Regarding Claim 98, Lasky shows a terminal comprising:

a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes respective associations of one or more channel categories for a plurality of corresponding television channels (**see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**); and

a processor, coupled to the memory, for causing the display of a browse banner on top of a portion of a first television program being displayed responsive to receiving an initial activation of a browse command (**col. 5 lines 30-45, control program and block 1/0 module, col. 6 lines 20-67, displaying category with television program, allowing using to select next program that is in corresponding category, fig. 6b browsing banner**), said browse banner comprising first program information (**fig. 6b, title and channel number**), said first program information corresponding to a second television program different than the first television program, wherein the processor causes the display of browse banner on top of the first television program without providing the second television program (**col. 6 lines 30-40, channel hat showing existence of other programs and channels relating to the selected category**), the

processor further configured for simultaneously searching at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49.** The control program also reads the current time and determines whether any other program is current—**column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset,**

**start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program).**

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using

the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (see Column 49, Lines 51-53 of Mankovitz).

Regarding Claim 100, Lasky shows a terminal comprising:  
a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of television channel categories (col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program); and  
a processor coupled to the memory (col. 5 lines 30-45, control program and clock 1/0 module), said processor configured to:

receive a user-selected television channel category (col. 9 lines 55-67, col. 10 lines 1-10, user scrolls through available categories), and  
responsive to the receiving the user-selected television channel category, search at least a portion of the channel table and provide program information exclusively for television programs corresponding to television channels

associated with the user-selected television channel category (**col. 6 lines 30-65, scrolling left and right only displays those programs that are within the selected category**),

wherein the processor is configured for simultaneously searching at least a portion of the channel table for data related to at least one channel to which category is assigned and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset,**

**start offset, length, and category information), each television channel category being associated with a corresponding plurality of television channels (col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program).**

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using

the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (see Column 49, Lines 51-53 of Mankovitz).

Regarding Claim 104, Lasky shows a terminal comprising:

a memory configured for storing respective program information for a plurality of corresponding television programs and a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of television channel categories (**col. 5 lines 64-67, col. 6 lines 1-20, program guide database contains record for each program, figure 5 item 52, col. 5 lines 30-45, data input module 56**); each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**); and

a processor, coupled to the memory (**col. 5 Lines 30-45, control program and clock I/O module**), said processor configured to simultaneously searching at least a portion of the channel table and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49.** The **control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) the processor further configured to receive selection of a channel category and, in response to receiving selection of the channel category, provide program information associated with the at least one channel

to which the selected channel category is assigned (**column 6, lines 31-65**), wherein the association of the first category to at least one television channel is received by the terminal from the television network (**col. 6 lines 1-20, receiving program information including categories from television distribution network**).

Lasky further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields, wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky fails to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a

different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Referring to claims 106-107, see the rejection of claims 82, 95 and 100 and further note the Examiner's rebuttal above.

3. Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (US 6,760,537), as applied to claim 82, and in further view of Amano (US 5,585,865).

Regarding Claim 93, Lasky and Mankovitz show that at least one channel is a plurality of channels corresponding to the assigned category in the second data (Lasky—col. 6 lines 30-50, existence of other channels in category) and the processor causes the channel tuning to only said plurality of based on an order (Lasky—col. 6 lines 30-50, channels arranged in numerical order in that particular category).

Lasky and Mankovitz fail to disclose that this order is determined by the user.

In analogous art, Amano discloses that the order of channels is determined by a user sorted listing of said pluralities of channels (col. 6 lines 30-50, col. 7 Lines 8-21, programs in a designated channel are ordered based on the number of times the user watches 'that channel, with is user determined).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to have the user modify the order of listings, as taught by Amano, for the benefit of presenting a highly customized channel line up for the user.

4. Claims 96, 99,101-103 and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lasky (US 6,367,078) in view of Mankovitz (US 6,760,537), as applied to claim 95, and in further view of Yuen (US 5,673,089).

Regarding Claim 96, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 Lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of enabling a user to specify all local channels as a viewing subset, which allows easy access to local programming.

Regarding Claim 99, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of allowing a user to specify all local channels as a viewing subset and gain easy access to local programming.

Regarding Claim 101, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen shows that one category could be local broadcast channels (col. 5 lines 55-60, 'network channels, col. 6 lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as taught by Yuen, for the benefit of allowing a user to specify all local channels as a viewing subset and gain easy access to local programming.

Regarding Claim 102, Lasky shows a terminal comprising:  
an interface for receiving data from to the television network said interface being capable of receiving a first data and a second data said first data including respective program information for a plurality of corresponding television programs, said second data comprising a channel table (**electronic program-guide (EPG)**) that includes a bit field signifying a plurality of channel categories (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**), said plurality of categories including a first category (**col. 6 lines 1-20,**

**multiple categories, and each program having different categories; because Lasky shows that each channel can receive multiple programs with multiple categories, subsequently each channel is assigned a plurality of categories); and processor (col. 5 Lines 30-45, control program and clock 1/0 module), configured to:**

receive a second user input corresponding to the first channel category (**col. 9 Lines 55-65, pressing up and down to select category**), and responsive to the receiving the second user input, simultaneously searching at least a portion of the channel table and causing the display of at least one television program (**the processor displays a television program and at the same time, searches for other channels carrying programs in the same category—column 6, lines 31-49. The control program also reads the current time and determines whether any other program is current—column 6, lines 50-67**) receive third user input corresponding to a selection of a channel category and, in response to receiving third user input, providing program information associated with the at least one channel to which the selected channel category is assigned (**column 6, lines 31-65**), wherein the association of the first category to at least one television channel is received by the terminal from the television network (**col. 6 lines 1-20, receiving program information including categories from television distribution network**).

Lasky fails to disclose receiving a user input corresponding to the assignment of the first category to a first television channel and responsive to the receiving the first

user input, store the association of the first category and the first television channel in the memory.

In analogous art, Yuen discloses receiving a user input corresponding to the assignment of the first category to a first television channel (**col. 5 lines 10-32, 36-67, col. 6 lines 1-26, user assigning multiple channel themes; user can also assign different channels to different themes (ABC under sports and news), hence assigning the channel different categories depending on the type of programming**) and responsive to the receiving the first user input, store the association of the first category and the first television channel in the memory (**col. 5 lines 10-16, channels stored in theme memory**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lasky with the user ability to assign categories to channels, as taught by Yuen, for the benefit of allowing a user with the capability of customizing a variety of display options in order to enhance the viewing experience.

Lasky and Yuen, Lasky in particular, further discloses a channel table (**electronic program-guide (EPG)**) that includes a listing of a plurality of channels and respective associations of one or more channel categories to each television channel identification (**col. 6 lines 30-65, category, title, and channel data and also see figure 6B and 6C and col. 6 lines 1-35 and 50-67 wherein upon selection of a certain channel, a channel hat 62 comprises an indication of the existence of other channels carrying programs in the same category as the program on the selected channel**), said channel table further includes a plurality of respective bit fields,

wherein at least one of the bits refers to a predetermined category (**col. 5 lines 64-67, col. 6 Lines 1-20, program guide database contains record for each program , figure 5 item 52, col. 5 lines 30-45, data input module 56, col. 6 lines 1-20, receiving program guide information from television distribution network, col. 6 lines 1-20, title field, time slot, end offset, start offset, length, and category information**), each television channel category being associated with a corresponding plurality of television channels (**col. 6 lines 6-65, multiple categories for each channel depending on broadcasted program**).

However, Lasky and Yuen fail to disclose that said plurality of respective bit fields include a plurality of bits with respective values, wherein each bit value corresponds to a different category and that the channel table comprises at least one channel entry comprising more than one category, as recited in the claims.

Mankovitz discloses that a channel table includes a listing of a plurality of channels (**see Column 49, Lines 41-47 for the channel table including records, wherein each record has a channel field**) and a respective bit mask for each channel (**see Column 49, Lines 47-50**), each bit mask comprising a plurality of single bits with each bit of the bit mask set at one of a plurality of respective values, wherein each bit of the bit mask refers to a predetermined category (**see Column 49, Lines 47-57**) and wherein the respective value at which each bit is set indicates whether or not the predetermined category corresponding to that bit is assigned to the respective channel (**see Column 49, Lines 62-67**).

Mankovitz further discloses that the channel table comprises at least one channel entry comprising more than one category (**see Column 49, Lines 36-67 for disclosing that the program guide database record includes a category field (for each record with a channel field) that includes an entry for each category.**)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the program guide database, as taught by Lasky and Yuen, using the bit masking technique, as taught by Mankovitz, for the purpose of allowing many different categories to be easily represented and searched, while taking up little space (**see Column 49, Lines 51-53 of Mankovitz**).

Regarding Claim 103, it is met by the combination of Lasky and Yuen. In particular, Yuen further shows that one category could be local broadcast channels (col. 5 liner 55-60, network channels, col. 6 lines 10-20, public broadcasting).

Regarding Claim 105, Lasky and Mankovitz fail to disclose that one of the categories is a local channel.

In analogous art, Yuen discloses that one category could be local broadcast channels (col. 5 lines 55-60, network channels, col. 6 Lines 10-20, public broadcasting).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Lasky and Mankovitz with the ability to designate local channels, as in Yuen, for the benefit of enabling a user to specify all local channels as a viewing subset, which allows easy access to local programming.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason P Salce/  
Primary Examiner, Art Unit 2421

Jason P Salce  
Primary Examiner  
Art Unit 2421

January 4, 2009